

REMARKS

Claims 1-2, 5-7, 9-12 and 13-15 are pending in the application. Favorable reconsideration is requested.

At the outset, applicants note with appreciation that the previous prior art rejections have been withdrawn. In the pending “Final” Office Action, a new prior art rejection has been lodged based upon the Choudary reference. Applicants respectfully request the withdrawal of the “finality” of the Office Action because this reference was previously cited during prosecution, but was not applied in the Office Action before the “Final” Office Action. Thus, applicants do not believe that the pending Office Action should be a “Final” Office Action. This request may be moot because, as noted below, the case is in condition for allowance.

Turning to the sole rejection in this case, claims 1-2, 5-7, 9-10 and 13-15 stand rejected under 35 U.S.C. 103(a) as allegedly being obvious over Choudary. Applicants respectfully request the withdrawal of this rejection because the pending claims (for example, independent claims 1 and 9) require a number of processing steps and features that are not disclosed or suggested by Choudary.

First, the claimed invention requires “activating the exchanged zeolite.” Choudary does not disclose or suggest this claim element. As known to those of ordinary skill in the art, and as clearly set forth in the specification, this required claim step of “activating the exchanged zeolite” is not Choudary’s calcination. Choudary’s calcination is simply the removal of water content in order to impart stability to the adsorbents. Thus, Choudary does not disclose or teach “activating the exchanged zeolite.”

Stated another way, Choudary is silent about activating the molecular sieve (exchanged zeolite) in Example 5 of Choudary, as required in the claimed invention. Indeed, in the subject

invention, the exchanged zeolite is activated by heating at a temperature of 350 - 450°C followed by cooling under inert or vacuum. See, for example, the specification and Claim 7. The required and claimed “activating” is completely different than the calcination as taught in Choudary. More specifically, the subject invention’s activation by heating and then cooling is quite different than Choudary’s calcination at 450 - 700°C. As noted above, it is well known that calcination is utilized to remove the water content in order to impart stability to the adsorbents. Thus, neither Choudary or anything in the prior art discloses or teaches that calcination is in any way the claimed “activating the exchanged zeolite.” For this reason, Choudary does not disclose or suggest the claimed invention and, therefore, does not render it obvious.

Second, the claimed invention requires “wherein the adsorbent has adsorbence up to 850 mm HG.” Choudary does not disclose or suggest this claim feature. Indeed, Choudary teaches and discloses adsorbents only in the Henry region -- not the claimed adsorbents up to 850 mm HG. Simply stated, Choudary’s process is different than the claimed process and does not yield the same results. Thus, Choudary does not disclose or suggest the claimed invention and, therefore, does not render it obvious.

Third, as is well known to those skilled in the art, catalyst chemistry is highly unpredictable. As examples, the performance/efficiency of a catalyst can vary tremendously even with a small difference in the method of its preparation; or the manner in which it is used for a particular purpose (such as its use in free state or in adsorbed form); or, if adsorbed, the kind of adsorbent that is used; or the temperature at which it is activated; etc. These differences are clearly demonstrated by the claimed invention as distinguished from Choudary. As noted above, the claimed process results in a molecular sieve having adsorption capacity at a pressure up to 850 mm Hg, compared to the adsorbent of Choudary having adsorption capacity only in the

Henry region. Thus, the claimed invention (which is different than anything disclosed or suggested in Choudary) yields superior and unexpected results -- which is a significant secondary consideration that overcomes any alleged prima facie obviousness assertion. In addition to the foregoing superior results, the claimed adsorbent has an excellent adsorption selectivity and oxygen/argon selectivity that is as high as 8 (see Example 3) compared to 4.1 for Choudary (see Example 5). Also, the claimed invention and its adsorbent has oxygen selectivity over argon throughout a broad pressure range and oxygen/nitrogen selectivity up to a pressure of 500 mm Hg. For at least these reasons, the claimed invention is not obvious in view of Choudary.

In view of the foregoing facts and reasons, applicants submit that the application is in condition for allowance. A notice to that effect is earnestly solicited.

If the examiner has any questions concerning this case, the undersigned may be contacted at 703-816-4009.

Respectfully submitted,

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